

## AMENDMENTS TO THE CLAIMS

### **1-9. (Canceled)**

### **10. (Currently Amended)** An angular velocity sensor comprising:

a transducer; and

a control circuit portion ~~that drives~~operable to drive the transducer and ~~detects~~to detect an angular velocity applied to the transducer,

wherein the transducer includes a drive electrode portion into which is inputted a drive signal to oscillate the transducer at a specific frequency, a monitor electrode portion ~~that detects~~operable to detect an oscillation frequency of the transducer and ~~outputs~~to output the detected oscillation frequency as a monitor signal, and a sense electrode portion ~~that outputs~~operable to output a sense signal which is generated due to an angular velocity applied to the transducer and is synchronized with the monitor signal, and

wherein the control circuit portion includes a correction circuit portion ~~that removes~~operable to remove, as a noise component, a noise signal component of the sense signal detected erroneously, as if an angular velocity ~~occurred~~is occurring in the transducer when no angular velocity is occurring in the transducer, from a signal component of the sense signal.

### **11. (Currently Amended)** The angular velocity sensor according to Claim 10, further comprising:

a memory portion for storing in advance data to remove the noise signal component from the signal ~~components~~component of the sense signal,

wherein the correction circuit portion ~~generates the~~is further operable to generate a correction signal based on the data stored in the memory portion and the monitor signal, and to constantly ~~removes~~remove the noise signal component from the signal ~~components~~component of the sense signal by superimposing ~~the~~a generated correction signal on the sense signal.

### **12. (Previously Presented)** The angular velocity sensor according to Claim 11, wherein:

the memory portion includes a data input terminal for the data to be stored; and

the data input terminal is brought into a conducting state when the data is stored in the

memory portion, and brought into a non-conducting state after the data has been stored in the memory portion.

**13. (Currently Amended)** The angular velocity sensor according to Claim 11, wherein:

the correction circuit portion includes a ladder resistor and a switch portion ~~that adjusts~~ operable to adjust a resistance value of the ladder resistor according to the data stored in the memory portion, and ~~generates to generate~~ the correction signal by attenuating the monitor signal using the ladder resistor.

**14. (Previously Presented)** The angular velocity sensor according to Claim 13, wherein:

the resistance value of the ladder resistor is set to be at least 100 times as large as a resistance value of internal resistance of the switch portion.

**15. (Currently Amended)** The angular velocity sensor according to Claim 10, wherein:

the noise signal component contains a first noise signal component generated in a state where a phase of the sense signal is not shifted with respect to a phase of the monitor signal; and

the correction circuit portion includes a first noise correction circuit ~~that removes~~ operable to remove the first noise signal component.

**16. (Currently Amended)** The angular velocity sensor according to Claim 15, wherein:

the noise signal component contains a second noise signal component except for the first noise component, that is generated due to a phase shift between the monitor signal and the sense signal; and

the correction circuit portion includes a second noise correction circuit ~~that removes~~ operable to remove the second noise signal component.

**17. (Currently Amended)** The angular velocity sensor according to Claim 10, further comprising:

a monitor amplifier ~~that amplifies~~ operable to amplify the monitor signal, and a sense amplifier ~~that amplifies~~ operable to amplify the sense signal,

wherein degrees of amplification of the monitor amplifier and the sense amplifier are made

equal.

**18. (Currently Amended)** The angular velocity sensor according to Claim 10, wherein:

the noise signal component is a signal component generated due to a mass balance of the transducer.